

Table S7. Summary of Kyoto Encyclopedia of Genes and Genomes (KEGG)**pathways analysis of 112 differential expression genes (DEGs).**

Pathway ID	Description	Number of DEGs in category
rno04926	Relaxin signaling pathway	8
rno04151	PI3K-Akt signaling pathway	10
rno05146	Amoebiasis	5
rno04933	AGE-RAGE signaling pathway in diabetic complications	5
rno04080	Neuroactive ligand-receptor interaction	9
rno04510	Focal adhesion	6
rno05205	Proteoglycans in cancer	6
rno04512	ECM-receptor interaction	4
rno04014	Ras signaling pathway	6
rno04064	NF-kappa B signaling pathway	4
rno04916	Melanogenesis	4
rno04974	Protein digestion and absorption	4
rno04659	Th17 cell differentiation	4
rno05134	Legionellosis	3
rno05165	Human papillomavirus infection	7
rno05217	Basal cell carcinoma	3
rno04010	MAPK signaling pathway	6
rno05162	Measles	4
rno05224	Breast cancer	4
rno05226	Gastric cancer	4
rno04061	Viral protein interaction with cytokine and cytokine receptor	3
rno04150	mTOR signaling pathway	4
rno04658	Th1 and Th2 cell differentiation	3
rno04310	Wnt signaling pathway	4
rno05340	Primary immunodeficiency	2
rno04650	Natural killer cell mediated cytotoxicity	3
rno05225	Hepatocellular carcinoma	4
rno04060	Cytokine-cytokine receptor interaction	5
rno04216	Ferroptosis	2
rno05145	Toxoplasmosis	3
rno04725	Cholinergic synapse	3
rno04066	HIF-1 signaling pathway	3
rno04722	Neurotrophin signaling pathway	3
rno04380	Osteoclast differentiation	3
rno05417	Lipid and atherosclerosis	4
rno05415	Diabetic cardiomyopathy	4
rno04611	Platelet activation	3
rno05167	Kaposi sarcoma-associated herpesvirus infection	4

rno04915	Estrogen signaling pathway	3
rno04550	Signaling pathways regulating pluripotency of stem cells	3
rno04213	Longevity regulating pathway - multiple species	2
rno05163	Human cytomegalovirus infection	4
rno05418	Fluid shear stress and atherosclerosis	3
rno04520	Adherens junction	2
rno04390	Hippo signaling pathway	3
rno04934	Cushing syndrome	3
rno05412	Arrhythmogenic right ventricular cardiomyopathy	2
rno00533	Glycosaminoglycan biosynthesis - keratan sulfate	1
rno05220	Chronic myeloid leukemia	2
rno01521	EGFR tyrosine kinase inhibitor resistance	2
rno05323	Rheumatoid arthritis	2
rno04612	Antigen processing and presentation	2
rno04062	Chemokine signaling pathway	3
rno05235	PD-L1 expression and PD-1 checkpoint pathway in cancer	2
rno05206	MicroRNAs in cancer	4
rno00360	Phenylalanine metabolism	1
rno04640	Hematopoietic cell lineage	2
rno04727	GABAergic synapse	2
rno05410	Hypertrophic cardiomyopathy	2
rno04657	IL-17 signaling pathway	2
rno04976	Bile secretion	2
rno05215	Prostate cancer	2
rno04660	T cell receptor signaling pathway	2
rno04015	Rap1 signaling pathway	3
rno04977	Vitamin digestion and absorption	1
rno04024	cAMP signaling pathway	3
rno04668	TNF signaling pathway	2
rno04966	Collecting duct acid secretion	1
rno01523	Antifolate resistance	1
rno04726	Serotonergic synapse	2
rno04215	Apoptosis - multiple species	1
rno05166	Human T-cell leukemia virus 1 infection	3
rno03040	Spliceosome	2
rno04068	FoxO signaling pathway	2
rno04936	Alcoholic liver disease	2
rno05135	Yersinia infection	2
rno04210	Apoptosis	2
rno05132	Salmonella infection	3
rno00350	Tyrosine metabolism	1
rno04960	Aldosterone-regulated sodium reabsorption	1
rno05216	Thyroid cancer	1
rno04270	Vascular smooth muscle contraction	2

rno00591	Linoleic acid metabolism	1
rno05033	Nicotine addiction	1
rno05143	African trypanosomiasis	1
rno05219	Bladder cancer	1
rno04672	Intestinal immune network for IgA production	1
rno04144	Endocytosis	3
rno05030	Cocaine addiction	1
rno00380	Tryptophan metabolism	1
rno04217	Necroptosis	2
rno04141	Protein processing in endoplasmic reticulum	2
rno05164	Influenza A	2
rno00600	Sphingolipid metabolism	1
rno02010	ABC transporters	1
rno04623	Cytosolic DNA-sensing pathway	1
rno05144	Malaria	1
rno05034	Alcoholism	2
rno04978	Mineral absorption	1
rno04370	VEGF signaling pathway	1
rno05213	Endometrial cancer	1
rno04360	Axon guidance	2
rno04622	RIG-I-like receptor signaling pathway	1
rno05321	Inflammatory bowel disease	1
rno05031	Amphetamine addiction	1
rno05221	Acute myeloid leukemia	1
rno05211	Renal cell carcinoma	1
rno05140	Leishmaniasis	1
rno04920	Adipocytokine signaling pathway	1
rno04924	Renin secretion	1
rno05214	Glioma	1
rno04917	Prolactin signaling pathway	1
rno05212	Pancreatic cancer	1
rno04662	B cell receptor signaling pathway	1
rno05100	Bacterial invasion of epithelial cells	1
rno04721	Synaptic vesicle cycle	1
rno00590	Arachidonic acid metabolism	1
rno04810	Regulation of actin cytoskeleton	2
rno04012	ErbB signaling pathway	1
rno05207	Chemical carcinogenesis - receptor activation	2
rno05208	Chemical carcinogenesis - reactive oxygen species	2
rno05210	Colorectal cancer	1
rno05032	Morphine addiction	1
rno05222	Small cell lung cancer	1
rno04620	Toll-like receptor signaling pathway	1
rno01522	Endocrine resistance	1

rno05414	Dilated cardiomyopathy	1
rno00564	Glycerophospholipid metabolism	1
rno05231	Choline metabolism in cancer	1
rno05142	Chagas disease	1
rno04931	Insulin resistance	1
